

CM What is claimed is:

Claim 1. In an electronic still image camera comprising:

an optical lens,

a shutter mechanism operably associated with said lens,

an array of discrete light sensing pixel elements, each pixel element being responsive when said shutter mechanism is operated to incident illumination from a subject image radiating through said lens and shutter mechanism to generate an analog picture information signal corresponding to said subject image,

pixel multiplexing means responsive to each array of pixel elements for separating an output from each pixel element into its primary color components,

analog to digital converter means responsive to the outputs of said pixel multiplexing means for converting said analog signals into corresponding digital data information signals.

25      ~~digital data compression means for applying a digital data compression algorithm to said digital data information signals to generate compressed digital data information signals, and~~  
            ~~removably mounted memory means for storing said compressed digital data information signals,~~  
            ~~the improvement comprising operator~~  
30      ~~selectable control means for controlling digital data format compatibility between said compressed digital data information signals and one of a plurality of operator selectable types of computer apparatus.~~

35      ~~Claim 2. The improved electronic still image camera of Claim 1 further comprising switch activated control means for improving the image signal storage efficiency by selectively determining the amount of storage of said removable memory means to be associated with storage of each picture image.~~

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Claim 3. The improved electronic still  
camera of Claim 1 further comprising picture image  
resolution determining means for selectively  
determining which of a predetermined set of  
compression algorithm parameters are to be applied  
to said digital data information signals in  
response to an operator activated switch means.

Claim 4. The improved electronic still  
camera of Claim 3 further comprising record marking  
means for generating and recording with each said  
image digital data information signals a coded mark  
indicating the compression algorithm parameters  
utilized in compressing said image digital data  
information signals.

Claim 5. The improved electronic still  
image camera of Claim 1 wherein said removable  
memory means comprises digital data diskette means  
having thereon a plurality of selectively  
addressable magnetic sector and track sections for  
recording said compressed digital data information  
signals.

65      Claim 6. The improved electronic still image camera of Claim 1 further comprising memory formatting means operable during the camera power-up routine to automatically format said memory means in accordance with one of a plurality of operator selectable type of computer apparatus.

70      Claim 7. The improved electronic still image camera of Claim 5 wherein said digital data compression algorithm of said digital data compression means is also recorded in its entirety on said diskette means and further comprising record marking means for recording a digital coded mark for indicating the compression algorithm parameters utilized in compressing each said image digital data information signal.

80      Claim 8. The improved electronic still image camera of Claim 1 further comprising audio recording means for simultaneously recording audio signals associated with each subject image and memory file correlation means for associating in

85        said memory means the respective storage locations of said audio signals with its associated image signals.

90        Claim 9. The improved electronic still image camera of Claim 3 further comprising record marking means for recording a unique mark indicating the compression algorithm parameters utilized in compressing each said image digital data information signal.

95        Claim 10. An electronic still image camera comprising

100        an optical lens,  
              a shutter mechanism operably associated with said lens,

105        an array of discrete light sensing pixel elements, each pixel element being responsive when said shutter mechanism is operated to incident illumination from a subject image radiating through said lens to generate an analog picture information signal corresponding to said subject image,

105        pixel multiplexing means responsive to said array of pixel elements for separating an output from each pixel element into its primary color components

110        analog to digital converter means responsive to the outputs of said pixel multiplexing means for converting said analog signals into corresponding digital data information signals,

115        digital data compression means for applying a digital data compression algorithm to said digital data information signals to generate selectively compressed digital data information signals,

120        removably mounted memory means for temporarily storing said compressed digital data information signals,

120        and selectable control means for controlling digital data format compatibility between said compressed digital data information signals and one of a plurality of predetermined selectable types of computer apparatus.

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Claim 11. The electronic still image camera of Claim 10 further comprising memory formatting means operable to automatically format said data stored in memory means in accordance with one of a plurality of operator selectable data storage formats.

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Claim 12. The electronic still image camera of Claim 10 further comprising image resolution determining means for selectively determining which of a predetermined set of compression algorithm parameters of said digital data compression means are to be applied to said digital data information signals.

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Claim 13. The electronic still image camera of Claim 12 further comprising record marking means for marking each said image digital data information signal to indicate which one of said predetermined set of compression algorithm parameters were utilized to compress said image digital data information signals.

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Claim 14. The electronic still image camera of Claim 10 wherein said removably mounted memory means comprises digital data diskette means and further comprising selectable diskette formatting for automatically formatting said diskette means in accordance with one of a plurality of operator selectable data format types.

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Claim 15. A process for storing an electronically sensed video image of an electronic still image camera comprising the steps of:

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Generating an analog signal corresponding to the radiant light incident on a predetermined number of light sensing pixel elements to generate analog image signals,

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Converting the analog image signals into digital electronic information signals wherein a distinct digital electronic signal corresponds to the analog image signals corresponding to the intensity of radiant light falling on the light sensing pixel elements,

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Temporarily storing the digital electronic information signals,

Compressing the digital electronic information signals by applying a data compression algorithm to sort digital electronic information signals,

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Selecting one of a plurality of predetermined data formats corresponding to a like plurality of data formats of a like number of types of computer apparatus, and

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Storing said compressed digital electronic information signals in said predetermined data format in a digital memory.

Claim 16. The process of Claim 15 further including the steps of:

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Detecting the presence or occurrence of one or more of a predetermined number of conditions, and

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Selectively activating said generating of the analog signal in response to the detection of said condition.

Claim 17. The process of Claim 15 further including the steps of:

Recording audio signals which relate to said analog image signals, and

190 Storing said audio signals in operable conjunction with said digital information signals such that both the audio and image signals can be retrieved.

195 Claim 18. An electronic video still image camera data format translator comprising:

Input means for producing electronic analog image signals corresponding to the outputs of a plurality of light sensing pixel elements corresponding to a predetermined number of discrete image sensing elements.

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205 Analog to digital converter means for converting said analog image signals into corresponding digital image signals corresponding to said array of such predetermined number of discrete image sensing elements.

Buffer means for storing image forms.

Compression selection means for applying a predetermined compression algorithm to said digital image signals.

210 Format selection means for determining one of a number of predetermined data formats in which said compressed digital image is to be stored and

Removable memory means for storing said digital images in said predetermined data format.

215 Claim 19. The electronic still image camera of Claim 10 wherein said pixel multiplexing means further comprises parallel processing switching means for simultaneously parallel processing the output of each such pixel element.

220 Claim 20. The electronic still image camera of Claim 10 further comprising remote activation means for selectively activating said camera.

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